

Micromem: Update on Projects

Toronto, Ontario and New York, New York--(Newsfile Corp. - December 14, 2017) - Micromem Technologies Inc. (CSE: MRM) (OTCQB: MMTIF) ("Micromem") ("the Company") through its wholly owned subsidiary Micromem Applied Sensor Technologies Inc. (MAST), provides an update on current projects.

Oil Field Technology Product.

Micromem through its wholly owned subsidiary MAST, has, over the last three years been engaged in a joint development agreement with our oil and gas partner ("our partner") to develop a first in the world technology (the "oil field technology product"). This Micromem patented product is designed to help our partner and subsequently the oil industry, more cost effectively manage data, in real time, allowing for extracting the maximum amount of oil from their fields and best manage their oil assets. Traditionally samples were sent to be analyzed in a pristine laboratory environment, now with the oil field technology product, it is ready to be mounted directly on producing wells, in the field. No one else in the world has demonstrated this capability. MAST has successfully brought state of the art lab quality analytical readings in real time to the field. Removing the requirement to undergo currently dangerous sampling procedures, and time consuming shipment of samples around the world to centralized labs.

Our partner has invested approximately \$3.0M USD into the joint development and our partner is spending an additional \$1 million USD over the next 45 days, of which Micromem has already received the first contracted payment of \$350,000 USD with an additional \$500,000 USD now due in December. The technical and functional performance of the product has been validated and the work is now focused on packaging the product for our product evaluation phase.

The initial schedule for commercialization was delayed approximately 20 months due to the past drop in global oil prices and the general slowdown of oil and gas company capital spending. Despite a reduction of over \$1 Billion USD in capital spending and a major reduction in employees of our partner, they maintained an investment in our product development which is indicative of the high value to them of deploying this product in the field.

Our partner also recently required that the contract be transitioned from the Technology Group to the Operations Group who is the owner of the wells, this assignment is now done. The Operations Group requested an updated proposal for subsequent roll out of the product around the world which the Company has provided them with the updated proposal showing volume based pricing up to several thousand units.

Micromem has now begun marketing the product to three major service providers in the oil and gas industry. The Company has already met with one of the suppliers in November and has an active proposal for technology transfer, global sales commitment and licensing fees over the next 5 years. The terms of the proposed technology transfer to include a prepayment for technology transfer and a minimum annual licensing fee based on a guaranteed volume of annual system sales.

In addition to our existing partner the Company has also been contacted by two European consortiums that routinely purchase, at reduced costs, partially depleted oil fields and then recover the remaining oil assets. We are in the process of negotiating a volume discount for sale of our existing product. These consortiums recognize that use of the Company's technology will accelerate their recovery of the remaining oil volumes in the purchased fields. There will be no development of the product required other than possible modifications to the sampling system.

An additional lucrative market for the Oil Field Technology Product

Through MAST's association with Nine Sigma, an innovative technology proposal for a major consumer product company was submitted. This company posted a Grand Challenge wherein they were looking for a solution to an organic raw material quality control issue that was costing them over \$1B USD per year in rejected product. Our response to the challenge described how the product that we have designed and tested for our major oil and gas partner could be used to solve this problem. Our submission was accepted and they requested a formal proposal from MAST. Our response included an initial proposal for field test of the product at a cost to the consumer product company of approximately \$100K USD in Q118 followed by \$8.2M USD commercial rollout to the various product facilities. Since this product is based upon our already developed technology, the Company anticipates no change to the product with the only potential modification being field packaging for portable use versus being mounted. If requested by the potential client, Micromem can deliver the full complement of systems in 2018.

This variation of use in our already existing developed technology has opened a new opportunity to deploy this product to companies that were not initially contemplated. The value proposition of this new application not only builds on existing successful work but creates opportunities for analytics and sales in markets other than oil and gas extending the value of this product.

Repsol Update

In a press release dated July 17, 2017 Micromem announced its relationship with Repsol. To date \$75,000 USD has been received with an additional \$25,000 due in December. The project experienced a 5 month delay in starting due to the time involved in integrating MAST as a contract supplier to Repsol payables and in addition as a result of a tax treaty between the US and Spain that required us to determine the appropriate amount of withholding tax on the work being invoiced. MAST has received the IRS opinion to the satisfaction of Repsol and this requirement is now complete.

The Company now plans to demonstrate to Repsol before the end of Q118 a bench top version of the functionality of the innovative product, after which the product will be sent to the foundry. Our schedule now estimates the final product being delivered by the end of Q318.

Update on patent portfolio

1. Awarded 6 new patents in 2017.
2. Currently prosecuting 11 new provisional and utility patents through USPTO.
3. In the National phase of PCT patenting globally we are prosecuting 18 patents to ensure the appropriate intellectual property and business freedom around the world.
4. Expect to submit 4 new patents in 2018.

About Micromem and MASTInc

MASTInc is a wholly owned U.S.-based subsidiary of Micromem Technologies Inc., a publicly traded (OTCQB: MMTIF) (CSE: MRM) company. MASTInc analyzes specific industry sectors to create intelligent game-changing applications that address unmet market needs. By leveraging its expertise and experience with sophisticated magnetic sensor applications, MASTInc successfully powers the development and implementation of innovative solutions for oil & gas, utilities, automotive, healthcare, government, information technology, manufacturing, and other industries. Visit www.micromeminc.com www.mastinc.com.

Safe Harbor Statement

This press release contains forward-looking statements. Such forward-looking statements are subject to a number of risks, assumptions and uncertainties that could cause the Company's actual results to differ materially from those projected in such forward-looking statements. In particular, factors that could cause actual results to differ materially from those in forward looking statements include: our inability to obtain additional financing on acceptable terms; risk that our products and services will not gain widespread market acceptance; continued consumer adoption of digital technology; inability to compete with others who provide comparable products; the failure of our technology; the infringement of our technology with proprietary rights of third parties; inability to respond to consumer and technological demands; inability to replace significant customers; seasonal nature of our business; and other risks detailed in our filings with the Securities and Exchange Commission. Forward-looking statements speak only as of the date made and are not guarantees of future performance. We undertake no obligation to publicly update or revise any forward-looking statements. When used in this document, the words "believe," "expect," "anticipate," "estimate," "project," "plan," "should," "intend," "may," "will," "would," "potential," and similar expressions may be used to identify forward-looking statements.

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